without injury to the mucous membrane. The animals became ill with acute pneumonia, and on *post-mortem* examination, from two to seven days, there was found extensive pneumonia and fatty degeneration of the kidneys. The air passages contained an exudation like that of human diphtheria, and the bacilli were present in large numbers. During the last ten or twelve years several epidemics of diphtheria have been traced to milk, but the way in which the milk became contaminated with the diphtherial virus was not ascertained, although the evidence was very strong that it had not been from a case of the disease in the human subject. The cows which yielded the milk were not reported to be unhealthy, except from having sores or chaps on their teats. The author has made experiments which appear to him to throw much light upon these outbreaks.

Two perfectly healthy milch cows, which had been kept under observation for ten days prior to the experiment, were inoculated with a broth culture of the bacillus derived from human diphtheria. On the second and third days there was a soft tender swelling at the place of inoculation, which reached its *maximum* at the end of a week, and then gradually became smaller and firm. The animals had a raised temperature, and left off feeding on the second or third day, then to all appearance recovered. But on the eighth or tenth day they were attacked by slight cough, which gradually increased. Both became emaciated; one died on the fifteenth day, the other was killed (being very ill) on the twenty-fifth day. During the illness both animals had an eruption on the teats and skin of the udder, which appeared in successive crops. From one of the cows on the fifth day milk was drawn from a healthy teat, the outside of the teat and the milker's hand having first been thoroughly disinfected. From this milk cultivations were made, and it was found that thirty-two colonies of the diphtheria bacillus, without any contamination, were obtained from a single cubic centimetre. Contrary, therefore, to what happens in the guinea-pig and in the cat, the diphtheria bacillus passes from the seat of inoculation into the system of the cow, and makes its appearance in the milk. The presence of the bacillus in the eruption on the udder was also demonstrated, both by microscopic examination